

Appl. No. 10/024,326
Amdt. Dated October 27, 2004
Reply to Office Action of June 28, 2004

REMARKS

The following remarks are responsive to the Office Action mailed June 28, 2004. Applicant would like to thank the Examiner for taking the time to conduct a telephone interview with Applicant on September 17, 2004. Applicant and the Examiner discussed the current outstanding Office Action in hopes of developing and clarifying the issues contained therein and to advance the prosecution of the present application. These remarks serve as the Applicant's summary of the interview and Applicant respectfully requests reconsideration and allowance of the pending Claims.

Claims 1-25 are currently pending.

Claim Rejection under 35 USC § 103:

Claims 1-19 and 21-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over DE 199, 23, 527 A1 to Bohlendorf ("Bohlendorf") in view of U.S. Patent 6,037,719 to Yap et al. ("Yap").

Specifically, the Examiner posits that – as to Claims 1-19 and 21-25 – Bohlendorf teaches an LED display array comprising a blue emitter in a center of a pixel; a pair of red emitters spaced apart from the blue emitter and symmetrically disposed about the emitter in second and fourth quadrants; a pair of green emitters spaced apart from the blue emitter and symmetrically disposed about the emitter in first and third quadrants (Figure 2 and claims 1-9). Bohlendorf teaches the blue emitters are half resolution of red and green emitters (B:R:G=1:2:2)(see Figure 2).

Appl. No. 10/024,326
Amdt. Dated October 27, 2004
Reply to Office Action of June 28, 2004

The Examiner notes, however, that Bohlendorf fails to teach a transistor and a capacitor coupled to an emitter and transistors connected to red and green emitters grouped together at interstitial corners.

The Examiner further notes that Yap teaches a transistor (22 or 24) and a capacitor (38) coupled to an LED (12) (see Figure 2 and column 3, lines 36-67) and transistors (22, 24) located at interstitial corners (see Figures 1-2 and column 3, lines 10-41).

Thus, the Examiner concludes that it would have been obvious to have modified Bohlendorf with the teachings of Yap so as to avoid to block the light of an emitter.

Specifically, with respect to Claims 15-16, Bohlendorf teaches a radiance value of red emitters and green emitters is equal (the ratio of color can be changed) (see Figure 2 and pages 6-7 of the Translation from the German).

With respect to Claim 19, Bohlendorf, as modified, teaches each emitter is independently addressable (see Bohlendorf at page 1, lines 3-11 and page 2, lines 1-9 and Yap at Figure 2).

With respect to Claim 20, the Examiner has rejected Claim 20 under 35 USC 103(a) as being unpatentable over Bohlendorf in view of Yap and US Patent 5,184,114 to Brown ("Brown").

Appl. No. 10/024,326
Amdt. Dated October 27, 2004
Reply to Office Action of June 28, 2004

The Examiner notes that Bohlendorf as modified fails to disclose an emitter is driven by an analog signal. Brown teaches an emitter (LED) driven by analog signal (see Figure 14; column 9, lines 31-36 and column 10, lines 17-34).

Thus, the Examiner concludes that it would have been obvious to have modified Bohlendorf as modified with the teachings of Brown, since the emitter could be either driven by digital signals (see Brown's Figure 8; column 3, lines 29-31; column 5, lines 58-68 and column, lines 1-15) or analog signals (see Figure 14).

Applicant respectfully traverses the present rejections.

As for Claims 1-19 and 21-25, Applicant submits that these Claims are patentable over Bohlendorf in view of Yap under 35 U.S.C. § 103(a).

As Applicant pointed out in the interview, a proper rejection under 103(a) must combine references in such a fashion that the combination – at a minimum – teaches or suggests all the claim limitations of the rejected claim in question. See MPEP section 2143.03.

Applicant respectfully avers that neither Bohlendorf nor Yap, either individually or in combination, teaches or suggests each and every limitation of Claims 1-19 and 21-25.

For merely one example of the above-mentioned defect, independent Claim 1 recites "wherein said second and third transistors are grouped together at interstitial

Appl. No. 10/024,326
Amdt. Dated October 27, 2004
Reply to Office Action of June 28, 2004

corners between said three-color pixel elements" -- where the second transistors and third transistors are coupled to the multiple emitters.

Applicant respectfully averred during the interview that neither Bohlendorf nor Yap discloses or suggests this particular claim limitation. In fact, Yap describes placing a single "matrix circuit element" (20) in the upper left hand corner of a pixel area which actuates a single light emitting element (12). As such, Yap fails to disclose or suggest the above limitation of Claim 1 -- namely, that multiple transistors or associated structures for multiple emitters are grouped together in the interstitial corners of the structure.

This defect, in and of itself, is sufficient to overcome the present rejection under section 103. In addition, as noted in the specification, this advantageous placement of transistors or associated structures for multiple emitters addresses the issue of decreasing the visible pattern of dark (e.g. blue) subpixels situated upon a panel.

For the foregoing reasons, Applicant respectfully requests that Claim 1 be passed through to allowance.

Similarly, Independent Claim 4 recites: "wherein said transistors for said red emitters and said green emitters are grouped together at interstitial corners between said three-color pixel elements". Additionally, Independent Claim 4 recites: "wherein said transistors for said red emitters and said green emitters are disposed at locations in said array such that said transistors for said red emitters and said green emitters are disposed at said spatial frequency said blue emitters and are 180 degrees out of phase with said blue emitters".

Appl. No. 10/024,326
Amdt. Dated October 27, 2004
Reply to Office Action of June 28, 2004

Applicant respectfully avers that neither Bohlendorf nor Yap teach or suggest either of the limitations above. As such, Applicant respectfully requests that Claim 4 be passed along to allowance.

Independent Claim 9 recites: "a second transistor for said red emitter, and a third transistor for said green emitter, wherein said second and third transistors are grouped together at interstitial corners between said three-color pixel elements".

Independent Claim 12 recites: "wherein said transistors for said red emitters and said green emitters are grouped together at interstitial corners between said three-color pixel elements". Additionally, Claim 12 recites: "wherein said transistors for said red emitters and said green emitters are disposed at locations in said array such that said transistors for said red emitters and said green emitters are disposed at said spatial frequency of said blue emitters and are 180 degrees out of phase with said blue emitters".

Independent Claim 17 recites: "wherein each said red emitter and said green emitter is coupled to a transistor and such that each such transistor for said red and green emitter is substantially located in a interstitial corner of said substantially rectangular coordinate system".

Independent Claim 18 recites: "wherein each said red emitter and green emitter is connected to a transistor such that said transistors for said red and green emitters substantially form a dark spot in the interstitial corners between said pixel elements".

Independent Claim 22 recites: "wherein said associated structures are grouped together upon said display such that said associated structures form dark spot regions

Appl. No. 10/024,326
Amtd. Dated October 27, 2004
Reply to Office Action of June 28, 2004

such that the visibility of the pattern of said blue subpixels upon said display is decreased to the human viewer".

As neither Bohlendorf nor Yap teach or suggest any of the above-mentioned limitations, Applicant respectfully avers that all such Independent Claims are allowable over the combination of Bohlendorf and Yap; and the same is respectfully requested.

As the references cited by the Examiner – either individually or in combination – do not teach or suggest the limitations of the pending independent Claims, Applicant respectfully submits that all pending Claims 1-25 are now in condition for allowance and the same is respectfully requested.

Appl. No. 10/024,326

Amdt. Dated October 27, 2004

Reply to Office Action of June 28, 2004

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claims 1-25 are patentable over the cited art of record and are in condition for allowance. Therefore, Applicant requests the Examiner to reconsider and withdraw her rejections to all pending claims and pass this application to issue.

If the Examiner believes a telephone conference would expedite the allowance of the claims, the Examiner is invited to contact Stuart P. Kaler at (707) 824-2487.

Respectfully submitted,

Dated: Oct 27, 2004

By: Stuart P. Kaler

Stuart P. Kaler
Reg. No. 35, 913